

THIS OPINION WAS NOT WRITTEN FOR PUBLICATION

The opinion in support of the decision being entered today
(1) was not written for publication in a law journal and
(2) is not binding precedent of the Board.

Paper No. 22

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte TSUNEO KUSUNOKI,
NORIHIRO TATEYAMA
AND KATSUTOSHI OHNO

Appeal No. 96-3843
Application 08/430,144¹

ON BRIEF

Before HAIRSTON, MARTIN, and LEE, Administrative Patent
Judges.

HAIRSTON, Administrative Patent Judge.

¹ Application for patent filed April 26, 1995. According
to applicants, the application is a continuation of
Application 08/034,890, filed March 19, 1993, abandoned.

Appeal No. 96-3843
Application No. 08/430,144

DECISION ON APPEAL

This is an appeal from the final rejection of claims 4 through 8.

The disclosed invention relates to a cathode ray tube that has a color filter layer sandwiched between a phosphor layer and an inner surface of a panel. The color filter layer comprises at least two different color filters aligned with corresponding color phosphors in the phosphor layer. Each of the at least two different color filters transmits light of the color of its corresponding phosphor.

Claim 4 is the only independent claim on appeal, and it reads as follows:

4. A cathode ray tube comprising:

a panel; and

a phosphor screen formed of a phosphor layer having at least two different color phosphors at separate locations of said screen, and a color filter layer having at least two different color filters aligned with corresponding color phosphors at said locations, each of said color filters comprising a filter coating film which transmits light of the color of its corresponding phosphor, said phosphor screen being formed on an inner surface of said panel, wherein said color filter layer is formed between said phosphor layer and the inner surface of said panel.

The references relied on by the examiner are:

Appeal No. 96-3843
Application No. 08/430,144

Gallaro et al. (Gallaro)	3,891,440	June
24, 1975		
Libman	4,392,077	July 5,
1983		

Claims 4 through 8 stand rejected under 35 U.S.C. § 103
as being unpatentable over Libman in view of Gallaro.

Reference is made to the briefs and the answer for the
respective positions of the appellants and the examiner.

OPINION

We have carefully considered the entire record before us,
and we will sustain the obviousness rejection of claims 4
through 8.

Libman discloses (Figure 5) a panel 78, a phosphor screen
86, 88 and 90, and a color filter layer 98, 100 and 102
sandwiched between the phosphor screen and an inner surface of
the panel. The phosphors 86, 88 and 90 "emit, when excited,
red, green and blue light, respectively" (column 7, lines 20
through 22). The color filters 98, 100 and 102 "have a body
color corresponding generally to the color of light emitted by
the associated phosphor layer" (column 7, lines 46 through
48).

Appellants argue (Brief, page 5) that "[c]learly, claim 4

distinguishes since Libman does not disclose a layer but rather spaced reflective particles." Although the color filter in Libman is made of a "shallow, random, clumped, discontinuous, open dispersion of contrast-enhancing particles" (column 7, lines 35 through 39), the color filter is still in the form of layers or elongate strips, albeit porous layers or strips. Nothing in the claims on appeal precludes a porous filter.

Appellants also argue (Brief, page 5) that "Libman does not disclose a filter coating film which transmits light of the color of its corresponding phosphor." As indicated supra, each of the color filters 98, 100 and 102 is of a color that corresponds to the color of the light emitted by the corresponding phosphors. Libman states (column 8, lines 47 through 51) that the light from the phosphors is transmitted through openings 112 in the dispersion of pigment particles in the color filters 98, 100 and 102. Nothing in the claims on appeal precludes the transmission of light through openings in each of the color filter layers.

In view of the presence of a color filter layer in

Libman², the examiner did not have to turn to the teachings of Gallaro to demonstrate the obviousness of the claimed invention. Although the obviousness rejection is based on Libman in view of Gallaro, it is permissible to affirm the examiner's rejection in light of Libman alone without designating the affirmance as a new ground of rejection. See In re Bush, 296 F.2d 491, 496, 131 USPQ 263, 266-67 (CCPA 1961). The obviousness rejection of claim 4 is sustained. The obviousness rejection of claims 5, 6 and 8 is likewise sustained because of appellants' grouping of the claims (Brief, page 5).

The obviousness rejection of claim 7 is sustained because the color phosphors and the color filters in Libman are "arranged in elongate strips."

² We note in passing that prior art Figure 2 in Libman discloses green, red and blue optically continuous color filters 22 aligned with corresponding green, red and blue color phosphors 20. The color filters 22 are sandwiched between the color phosphors 20 and a faceplate panel 16. Although the use of optically continuous color filters in cathode ray tubes is known, Libman states (column 2, lines 47 through 56) that they are too expensive for commercial use.

Appeal No. 96-3843
Application No. 08/430,144

DECISION

The decision of the examiner rejecting claims 4 through 8 under 35 U.S.C. § 103 is affirmed.

No time period for taking any subsequent action in connection with this appeal may be extended under 37 CFR § 1.136(a).

AFFIRMED

KENNETH W. HAIRSTON)	
Administrative Patent Judge)	
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)	BOARD OF PATENT
JOHN C. MARTIN)	APPEALS AND
Administrative Patent Judge)	INTERFERENCES
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Administrative Patent Judge)	

Appeal No. 96-3843
Application No. 08/430,144

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